BVM-01 BOREHOLE VECTOR MAGNETOMETER

DESCRIPTION

The BVM-01 contains a high sensitivity three component fluxgate magnetometer and two-axis tiltmeter to provide measurements used in vector magnetic and borehole orientation surveys.

The sensors are mounted in a non-magnetic housing, which is pressure rated to 1500 or 3000 meters.

All functions within the probe are controlled by an on-board microprocessor, that samples each sensor twice every second, and transmits the digital data record up-hole along the four conductors logging cable to the BIN-04 digital data interface.

Power and a return ground provided to the probe through 2 of the cable conductors.

Each component of the magnetic field is sampled over 0.4 seconds to a sensitivity of 0.1nT. The 2-axis tiltmeter provides an accurate value of the borehole dip from 0 (vertical) to 80°.

Its 40-mm outer diameter permits use of the BVM-01 in small hole drilling programs typical in the mining industry.

A complete copy of all measurements is recorded that permits further analysis in area of high magnetic gradient, which are often associated with mineralization.

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PROBE SPECIFICATION	
Magnetometer	Range: +/-100,000nT Sensitivity 0.1nT Measuring time 0.5 sec.
Tilt Meter	Range: 0 to 80° Sensitivity 0.1°
Computer Dip	0 to 80° from vertical
Computed Asimuth	0 to 359°
Housing	High strength filawound tube
Maximum Depth	1500 meters for 40mm housing 3000 meters for 42mm housing
Connection	4-pin connector (Gearhardt Owen)
Temperature Range	Storage: -35°C to 70°C Operating: 0°C to 70°C Extended: 0°C to 125°C
Sampling Rate	2 Hz
Output	10mA current loop, 4800 baud
Supply Voltage	24 VDC @ 5W (at probe header)
Dimensions	40mm diameter x 1.4 meters long
Weight	2.8 kg